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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,635	07/19/2006	Masato Kaneko	292229US0PCT	6052
22850	7590	06/15/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
OLADAPO, TAIWO				
ART UNIT		PAPER NUMBER		
1797				
NOTIFICATION DATE		DELIVERY MODE		
06/15/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/586,635

**Applicant(s)**

KANEKO, MASATO

**Examiner**

TAIWO OLADAPO

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The amendment dated 04/23/2009 has been considered and entered for the record. The applicant's response was persuasive therefore previous rejections are withdrawn. New rejections are made below.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1 – 6, 9, 10, 19, are rejected under 35 U.S.C. 102(b) as being anticipated by Nagano et al. (US 2003/0153472)

4. In regards to claims 1, 2, 19, Nagano teaches a lubricating oil composition for fluid bearing (title). Nagano in Table 2 teaches base oils of the invention having kinematic viscosity @ 40°C of 8.3, or 7.5 or 7.8, which meets the limitations of the claim (Table 2). Nagano teaches the composition contains benzotriazole which is a metal deactivator in the amount of 0.03%, and trioctyl phosphate of which is an extreme pressure (EP) additive in the amount of 1%, which meets the claimed limitations [0042, Table 4].

5. In regards to claim 3, Nagano teaches the oil can comprise further additives such as oxidation inhibitor [0036].

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6. In regards to claims 4, 5, Nagano teaches the oil wherein the phosphoric acid ester is trioctyl phosphate which has a total of 24 carbons which meets the claimed limitation.
7. In regards to claim 6, Nagano teaches the oil used in oil-impregnated bearings [0001].
8. In regards to claims 9, 10, Nagano teaches the oil having kinematic viscosity that meets the ranges recited.

### *Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 7, 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. (US 2003/0153472) in view of Masao et al. (JP 09-222125)

12. In regards to claims y, 8, Nagano teaches the oil used for sintered bearings but does not recite the method of preparing the bearing comprising the steps of sizing, degreasing and impregnating. Masao is analogous art which teaches the process of making oil impregnated

bearings comprising as sizing step, a degreasing or washing process to removed entrained sizing lubricant, followed by an oil impregnation step [0010 – 0012]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the method of Masao to prepare the oil impregnated bearing of Nagao, as the method is suitable for preparing oil impregnated bearings.

13. Claims 11 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. (US 2003/0153472) in view of Gonsel et al. (US 2002/0114980)

14. In regards to claim 11, Nagano teaches a lubricating oil for oil impregnated bearings used in magnetic based information devices such as hard disk drives (HDD's) and video cameras[0002, 0003, 0068] comprising PAO's or poly- $\alpha$ -olefins which are synthetic oils, and mineral oils but does not particularly teach the combination [0040].

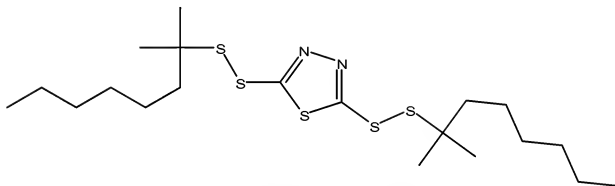
Gonsel teaches lubricant's for magnetic medium for information storage/retrieval such as computer hard disc drives (HDD's) compact disk drives, audio and video equipments similar to the invention of Nagano (abstract). Gonsel teaches the lubricant one or more lubricants can be used for lubrication including mineral oils, poly- $\alpha$ -olefins etc [0018, 0019]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used mineral and synthetic lubricants for lubricating the device of Nagano, as Gonsel teaches they are suitably used together for lubricating magnetic based devices.

15. In regards to claim 12, Nagano and Gonsel combined teach the composition comprising PAO based synthetic oils as previously stated.

16. In regards to claim 13, Nagano and Günsel combined teach the lubricant, wherein the lubricant comprises antiwear additives such as tricresyl phosphate and triaryl phosphite [Günsel, 0140]. Antiwear additives also serve as extreme pressure additives.

17. In regards to claim 14, Nagano and Günsel combined teach the lubricant comprises benzotriazole [Günsel, 0140].

18. In regards to claim 17, Nagano and Günsel combined teach the lubricant comprises 2,5-bis (tert-nonyldithio)-1,3,4-thiadiazole [Günsel, 0140] having the structure as shown below;



2,5-bis (tert-nonyldithio)-1,3,4-thiadiazole

The structure meets the first of the three structures represented as (IX) in claim 17 when d, e are each 2, and  $R_{11}$ ,  $R_{12}$  are each  $C_9$  groups

19. Claims 15 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. (US 2003/0153472) in view of Dorer (US 5,275,630)

20. In regards to claims 15 – 17, Nagano teaches the lubricating oil but does not particularly recite they contain thiadiazole compounds. Dorer teaches additives that can be used in lubricating oils and fuels (column 8 lines 53 – 58). The additives contain thiadiazoles that can be

used as stabilizers against oxidation of compositions (column 6 lines 42 – 45). Cahoon teaches thiadiazoles are of the formula (I) wherein when x and y are each 2, and R<sub>1</sub> and R<sub>2</sub> are C<sub>8</sub> groups, the structure is 2,5,-bis (n-octyldithio)-1,3,4-thiadiazole which meets the limitations of claims 15 – 17 (column 3 lines 40 – 68). It would have been obvious for one of ordinary skill in the art at the time of the invention to have used the thiadiazole compounds of Dorer in the invention of Nagano as Cahoon teaches they are suitable as oxidation inhibitors for lubricants.

21. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano et al. (US 2003/0153472) in view Nakanishi et al. (US 6,586,376)

22. In regards to claim 18, Nagano teaches a lubricating oil for oil impregnated bearings but does not teach the pour point of the oil. Nakanishi teaches oils for oil impregnated bearing similar to Nagano (column 13 lines 60 – 67). Nakanishi teaches the pour point of the oil can be - 27.5 which meets the limitation of the claim (Table 5). It would have been obvious for one of ordinary skill in the art at the time of the invention to have used oils having the pour point recited by Nakanishi in the invention of Nagano, as Nakanishi teaches oils suitable for use in oil impregnated bearings.

### ***Response to Arguments***

23. Applicant's arguments with respect have been considered but are moot in view of the new ground(s) of rejection.

24. The applicant correctly argues that the Kawahara reference does not qualify as prior art under U.S.C. 102(e) as the 371 application was not published in English before the priority date

of the foreign reference from which priority has been claimed for the instant invention, thus overcoming the reference. However, in view of new rejections, the arguments are moot.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAIWO OLADAPO whose telephone number is (571)270-3723. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TO

/Glenn A Caldarola/  
Acting SPE of Art Unit 1797